

Timorese Hakka Online Community Participation in Australia: An Extension of the Theory of Planned Behavior

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For the Timorese Hakka, an ethnic Chinese group, migration to Australia is a recent phenomenon, dating back to the mid 1970s. After moving to and settling down in Australia, Timorese Hakka have used communication technologies such as online communities to virtually connect and socialize with their people beyond physical boundaries. This study extends the theory of planned behavior with an ethnic identity concept to explain and predict the ethnic group's online community participation. A mixed-mode survey was conducted to collect a sample of 374 participants. The results indicated that Timorese Hakka intentions to participate in Hakka online communities were

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directly influenced by their attitudes, subjective norms, and perceived behavioral control, but indirectly and significantly by their ethnic identity.

Keywords: Timorese Hakka, Ethnic Online Community, Theory of Planned Behavior, and Ethnic Identity

澳洲東帝汶客家人之網路社群行為調查：計畫行為理論之延伸

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澳洲當地有為數可觀的東帝汶客家人，這些人的原鄉以大陸梅州為主。1975 年印尼入侵東帝汶，當地的華人不堪戰爭所苦，多數二次移民到澳洲。有鑑於澳洲地廣人稀，無遠弗屆的傳播科技，似乎具備連結族群、凝聚認同的功能，因此本研究企圖探討傳播科技在族群不斷的遷徙和移動中扮演的角色。本研究以計畫行為理論、輔以族群認同概念作為分析工具，以立意採樣和滾雪球方式進行問卷調查，對象涵蓋採用和不採用網路社群的東帝汶客家人，蒐集有效樣本 374 份。研究結果發現，東帝汶客家人參與客家網路社群的態度、主觀規範和知覺行為控制都是影響意願的顯著因素。族群認同雖然無法直接提高意願，但是透過正向態度，親友規範和較高的自我效能，可以發揮促進的作用。

關鍵詞：東帝汶客家、族群網路社群、計畫行為理論、族群認同

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Introduction

The East Timorese community in Australia, comprising indigenous and non-indigenous (including ethnic Hakka) groups, has been characterised as living in a “liminal position between the cultures of their country of origin and their country of residence in ‘an interstitial zone of displacement and deterritorialisation that shapes’ their identity” (Costa-Pinto 2012: 280). The East Timorese community is heterogeneous and various in language, culture, and religion, as well as generational, political, and socio-economical differences (Askland 2014). Within this community, there are sub-communities such as the “twin communities” one of which is Chinese Hakka speaking, and the other speaks Portuguese or Tetum (Thatcher 1992). As far as Timorese Chinese are concerned, almost the entire majority are Hakka. The subject of interest in this paper is the Timorese Hakka community. The Timorese Hakka speak Hakka on a daily basis and endeavour to preserve their cultural practices such as food and cultural celebrations. But the community elders who fear the loss of cultural identity among the younger generation have responded to the challenge and have realised that they can make use of the internet just as they have utilised social activities in their quest to uphold their cultural identity (Chew and Huang 2014). Here the authors propose to further explore and analyse internet usage among the Timorese Hakka in Australia.

Internet usage appears to be widespread in Australia when compared

to other first world regions. Internet penetration in North America (89.0%), Europe (73.9%) and Oceania (73.3%) is much higher than in other areas of the world (see www.internetworldstats.com 2016). As much as Oceania is concerned, the usage is concentrated in Australia; i.e., 92 percent of its population is using the internet, while 65 percent of the population has Facebook accounts. According to Chew's and Huang's (2014) research on the Timorese Hakka community and their usage of communication technology, the internet played at least three roles in forming their imagined community: (1) facilitating the real community to initiate the virtual community; (2) enabling the virtual community to reach out to the real world; (3) bridging the virtual community groups in interacting with each other. Even though the ethnic virtual community may serve several functions in strengthening ethnic identity, in the case of Timorese Hakka in Australia, no single online group has over a thousand members and many people have overlapping memberships at different sites. Hence there is a need to understand the factors which affect ethnic online community participation. This information can assist ethnic groups in general and Hakka people in particular in managing their online communities.

In order to provide a systematic analysis for examining Timorese Hakka participation in Hakka online communities, we attempted to extend the theory of planned behavior (TPB) with ethnic identity. Several previous studies have adopted the TPB to study information technology adoption (e.g., Hsu and Lu 2007; Lee 2009; Riemenschneider et al. 2003) but no studies have extended an ethnic identity perspective to the model. The TPB is unable to delve fur-

ther and deeper into a community's background (e.g., feelings of identity and connections of individuals to each other and to the community). By the same token, the ethnic identity model may lack analyses which are examined by the TPB such as social attitudes and personal traits. We believe a synthesis of the TPB and the ethnic identity approaches can provide more holistic explanatory answers on Timorese Hakka participation in ethnic online communities.

Timorese Hakka in Australia

Historical background on Timorese Hakka

The historical background on Timorese Hakka in Australia can be traced back to the island of East Timor or Timor Leste (East Timor is used hereafter), an island which is strategically located in the midst of the eastern Indonesian archipelago and to the north of the Australian continental landmass. The Timorese Hakka call themselves Timorese Chinese or Timorese. History, geopolitics and cultural identity intersect to confer unique characteristics on the Timorese Hakka, the majority of whom now live in Australia. Researchers cited by Berlie (2015) record the sandalwood trade with China as a catalyst for Chinese interest on the island in the 14th century. European colonial expansion into maritime Southeast Asia in the 16th century with the Portuguese creating a colony on East Timor, and the subsequent Chinese migration especially in the early 20th century, established the nucleus of the Hakka presence on the island.

The Hakka are a homogenous Chinese community with smaller numbers of other Chinese such as Cantonese, who are acculturated into speaking Hakka and who accept the cultural identity of being called Hakka alongside the majority Hakka. This is a unique situation of a homogenous Hakka community in Southeast Asia but there are examples of similar Hakka communities or enclaves on the island of Borneo, in West Borneo, Sarawak and Sabah. The Hakka in East Timor hail from Meixian and its surrounding counties. Historically, the small Timorese Hakka community and the compactness of the island was conducive towards the maintenance of a Hakka identity which was defined largely by the Hakka language and to an extent, Mandarin. In previous research findings, the mastery of, and the generational transmission of the Hakka language was regarded as critical for the continuity of Hakka identity alongside Mandarin another marker of identity (Chew and Huang 2014). Timorese Hakka have mastered several languages, Portuguese, the language of the past colonial masters, Tetum the indigenous language, and other languages such as Indonesian, the language of the Indonesian colonial rulers who annexed the island from 1975 to 1999, and English, regarded as a universal global language.

The volatile geopolitical situation in Southeast Asia in the mid 1970s with the end of the Vietnam war, struck East Timor in late 1975 with the sudden Portuguese withdrawal from East Timor and the granting of a short-lived independence marked by local civil war among competing political factions. With the political strife at its doorstep, Indonesia stepped in, occupied East

Timor and incorporated it as a province of Indonesia from 1975 until 1999. This period of Indonesian rule, which was resented and fought against by the local Timorese, provoked even strong Indonesian retaliation, marking a time of insecurity and violence for indigenous Timorese and Chinese alike. Whereas under four centuries of Portuguese rule, the Hakka were allowed to live their lives unhindered and carry on with their economic activities of trading, Indonesian occupation and rule brought about bloodshed and feelings of uncertainty and insecurity.

Migration from East Timor to Australia

The Timorese Hakka, as a minority in East Timor that felt threatened, and deciding that East Timor was no longer a safe country to live in, fled in waves to Taiwan, Portugal and then to Australia where many eventually stayed on without returning to East Timor. There were three waves of migration from East Timor to Australia which included the Timorese Hakka among them (Department of Immigration and Citizenship 2014). Firstly, at the end of 1975 with the outbreak of civil war and the beginning of Indonesian invasion some 2581 persons reached Australia. Secondly, between 1979 and 1986, about 5,000 persons arrived in the country under a Special Humanitarian Program (SHP). Finally, between 1990 and 1997, about 1,000 Timorese came under a Special Assistance Category. The Australian census of 2011 puts the estimate of Timor Chinese who are Hakka at 5,522.

The presence of the Timorese Hakka in modern day Australia may then

be regarded as a second wave of migration, the first wave being out of eastern Guangdong, principally Meixian and its surrounding areas to East Timor. What is unique about the Timorese Hakka is that the majority of them now live in Australia after fleeing East Timor. The Timorese Hakka are geographically spread throughout Australia with the top three states of settlement being Victoria, New South Wales, and the Northern Territory, in the authors' estimate and from our interviews with Timorese Hakka. From the Australian 2011 census, it is not possible to have figures for the number of Hakka in the different states as the census only gives the breakdown as Timor-Leste-born and not according to ethnicity, indigenous Timorese or Timorese Chinese. Listed according to Timor-Leste-born persons who include the Timorese Hakka, 4,966 persons were living in Victoria (53.8 %), New South Wales had 2,167 (23.5%) and the Northern Territory had 988 (10.7%), followed by 514 (5.6%) in Queensland and 424 (4.6%) in Western Australia.

These three states of Victoria, New South Wales and the Northern Territory have active associations, institutions which play a big part in the social and cultural lives of the Timorese Hakka. The associations are physical, social and cultural spaces where the Timorese Hakka act out their cultural identity, where Hakka is spoken and where they celebrate the cycle of Chinese festivals, Australian celebrations like Christmas and New Year, and monthly personal birthdays. Through the associations which have Facebook web sites, the Timorese Hakka connect with other Timorese Hakka elsewhere in Australia and beyond.

The Timorese Hakka cyber identity merges with their real identities in the associations where community leaders and others use the internet or smart phone to stay in touch with fellow Timorese Hakka or keep track of upcoming events and celebrations (Chew and Huang 2014). Through the nexus or interconnectivity of the real and virtual communities the Timorese Hakka in Australia come to terms with the social forces of modernity shaped by the internet and the local and global connectedness with their co-ethnics. The Timorese Hakka rely on personal friendships and connections, such as family kinship based on surnames and school alumni groups in a closely knit community spread across Australia. For outside observers this connectedness could be perceived as reclusive and inward looking (Thatcher 1992).

The detailed background discussion so far, outlines a community identity bound by history, culture and geo-political factors, which resulted in migration from the homeland of East Timor to the new domicile of Australia. This preliminary discussion predisposes the authors towards proposing ethnic identity as a possible contributor together with the theory of planned behavior in examining the Timorese Hakka embrace of and participation in online communities.

Theories and Research Hypotheses

In order to identify the underlying factors that drive Timorese Hakka to participate in Hakka online communities, we draw on the theory of planned

behaviour (Ajzen 1991; Ajzen and Fishbein 1980; Fishbein and Ajzen 2010) and the ethnic identity concept (Phinney 1990; Phinney and Rotherham 1987). The theory of planned behaviour (TPB) is a social psychology theory dealing with cognitive self-regulation, such as social attitude and personality traits, to predict and explain human behavior in “specific” contexts and is selected as a central model to investigate how Timorese Hakka participate in ethnic online communities. TPB asserts that an individual is more likely to perform a behavior (such as Hakka online community participation) when he or she holds a favorable attitude toward the behavior, perceives that significant others think he or she should perform the behavior, has more control over the expected barriers, and shows how hard he or she is willing to try. Therefore, we are interested in the relations among (1) attitude, (2) subjective norm, (3) perceived behavioral control, and (4) behavioral intention when Hakka online community participation is of concern.

In addition, ethnic identity characterizing the self-concept and psychological functioning of ethnic group members is relevant to our study in particular. Ethnic identity refers to one’s sense of belonging to an ethnic group and the part of one’s thinking, feelings, and behavior that is due to ethnic group membership. A number of approaches have been used in the study of ethnic identity: e.g. cognitive developmental psychologists examine the individual’s ability to discriminate, differentiate, and integrate ethnic stimuli and experience; social psychologists study the process of social comparison between oneself and others; anthropologists focus on descriptions of common behav-

ior patterns within a culture or ethnic group (Phinney and Rotherham 1987). For this study, a cognitive developmental orientation is adopted.

In sum, TPB and ethnic identity are synthesized and integrated in terms of the extent to which different predictors can be used to understand the intentions of Timorese Hakka to participate in Hakka online communities. Figure 1 depicts the theoretical framework of the present study following Ajzen’s (1991: 182) structural diagram and adding ethnic identity as an additional factor of behavioral intentions.

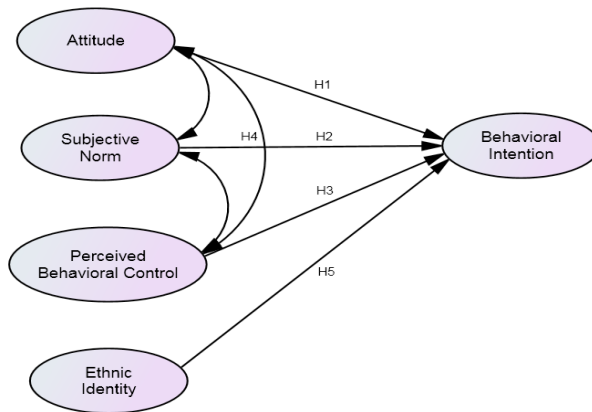


Figure 1. Theoretical Framework of the Present Study

Source: Made by authors.

Theory of planned behavior

The TPB is chosen as the guiding framework for developing the research model as illustrated in Figure 1. The individual's intention is a central factor in the TPB to perform a given behavior because it is assumed to capture the motivational factor that influences behavior (Ajzen 1991). Behavioral intention is a measure of "a person's readiness to perform a behavior" (Fishbein and Ajzen 2010: 39). Attitude is defined as "a latent disposition or tendency to respond with some degree of favorableness or unfavorableness to a psychological object" (Fishbein and Ajzen 2010: 76). For a wide array of behaviors across the different meta-analyses, the mean correlations of attitude with intentions range from .45 to .60. Accordingly, the study suggests the following hypothesis:

H1: Attitude is positively related to the intention to participate in Hakka online communities.

Subjective norms refer to the "perceived social pressure to perform or not to perform a given behavior" (Fishbein and Ajzen 2010: 130). That is, subjective norms are viewed as people's perceptions that most important others think they should or should not perform the behavior in question. Hsu and Lu (2007) and Lee (2009) found that subjective norms play an important role in online games which encourage people to change their attitudes, values, or behavior in order to conform to the same community. Based on these find-

ings, the following hypothesis is proposed in this study:

H2: Subjective norm is positively related to the intention to participate in Hakka online communities.

According to Fishbein and Ajzen (2010), having a favorable attitude and perceiving social pressure may not be sufficient for the formation of an intention to perform a behavior over which people have incomplete volitional control (e.g., time, money, skills, cooperation of others) (Ajzen 1991). Perceived control over performance of the behavior is defined as “the extent to which people believe that they are capable of performing a given behavior, that they have control over its performance” (Fishbein and Ajzen 2010: 154-55). Among meta-analyses, for the prediction of intention from perceived behavioral control, the range of mean correlations is .35 to .46. Therefore, the study tested the subsequent hypothesis:

H3: Perceived behavior control is positively related to the intention to participate in Hakka online communities.

When attitude, subjective norm, and perceived behavioral control have been formed, they are directly accessible and available to guide intentions and behavior. In combination, Fishbein and Ajzen (2010) stated that attitude, subjective norm, and perceived behavioral control lead to the formation of a be-

havioral intention or a readiness to perform the behavior. Given most studies treated the 3 TPB constructs as separate independent predictors (e.g., Cheung and Yo 2016; Lee 2009; Yang and Wang 2015), the study still referenced Ajzen's (1991: 182) structural diagram to hypothesize positive interactions among the three predictors.

H4: Attitude, subjective norm, and perceived behavior control have positive interactions.

Ethnic identity

Rooted in social identity theory, ethnic groups represent a special case of group identity (Tajfel 1978). If the dominant group in a society disrespects the traits or characteristics of an ethnic group, the concept of ethnic identity provides a way to assert oneself in the face of threats to one's identity (Weinreich 1983). Cognitive psychologist Phinney (1990) reviewed 70 studies on ethnic identity and found that the majority of the studies focused on the following components: ethnic awareness, ethnic self-identification, ethnic attitudes, and ethnic behaviors. Among them, Phinney argued that "ethnic self-identification is clearly an essential starting point in examining ethnic identity" (Phinney 1990: 504), and so we propose the concept as an influential factor of behavioral intentions toward participating in Hakka online communities (Figure 1). In terms of definition, ethnic self-identification refers to the ethnic label that one uses for oneself. Several scholars have used the Hakka label, language,

culture, customs, history et al. to examine ethnic self-identification (Chen 2001; Hsu and Lee 2012; Huang 2006; Lee 2006). The Timorese Hakka as a very small minority community in Australia, is conscious of the necessity of asserting and continuing its cultural identity. Thus, it is posited that:

H5: Ethnic identity is positively related to the intention to participate in Hakka online communities.

Method

Survey instrument

In some situations, it is impossible to avoid using multiple modes to conduct a particular survey. Dillman (2007) summarized five situations for use of mixed-mode surveys: (1) collecting the same data from different members of a sample, (2) collecting panel data from same respondent at a later time, (3) collecting different data from the same respondents during a single data collection period, (4) collecting comparison data from different populations, and (5) using one mode only to promote completion by another mode. As aforementioned, Timorese Hakka merge their cyber identity with real identities in the associations where community leaders and others use the internet or smart phone to stay in touch with fellow Timorese Hakka or keep track of upcoming events and celebrations (Chew and Huang 2014). Thus, a mixed-mode survey by collecting the same data from different members of a sample might serve the best way to reduce non-responses. That is, we proposed to obtain

questionnaire responses from some members of our sample by the internet mode and from other members by the paper mode.

The questionnaire collection ran continuously for six weeks through the internet from July to August of 2016. To solicit a pool of respondents whom we hoped would be as close to the general population of Timorese Hakka in Australia, the link to the survey was distributed through major Facebook pages and groups based in Australia in general and in particular in Victoria and New South Wales (see Appendix). Given that more than half of Timor-born Australian residents (53.8%) are settled in Victoria, we chose Melbourne, the capital of Victoria state, as our sole physical destination to distribute our paper survey. The paper copies of the survey were handed out to Timorese Hakka persons who were physically present at the associations of Victoria when we arranged to meet them (see Appendix). For the internet survey, we made several waves of public postings on those associations' news feeds and sent out personalized messages via Facebook, Line, WeChat et al. to invite members to participate.

Variable measurements

The respondents were asked to rate the opinions on their adoption of Hakka online communities on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Most variables measured by the questionnaire items were suggested by previous studies. Detailed measures are described as follows:

Theory of planned behavior (TPB). TPB posits three conceptual independent determinants of intention. In the present study, the first is the attitude towards participating in Hakka online communities and refers to the degree to which the respondent has a favorable or unfavorable evaluation or appraisal of the behavior; the second predictor is the subjective norm, which refers to the perceived social pressure to participate or not to participate in Hakka online communities; the third predictor is the degree of perceived behavioral control which refers to the perceived ease or difficulty of participating in Hakka online communities with an assumption to reflect past experience and anticipated obstacles. As for the dependent variable, the intention to participate in Hakka online communities measures behavioral intention to take part in Hakka forums, blogs, social media, and so on. For example, a Facebook group, TimorLo Club, generated more than 900 members, most of whom were Timorese Hakka. Specifically, respondents' attitudes, subjective norms, perceived behavioral control, and behavior intention towards participating in Hakka online communities were respectively measured with 3 to 4 statements, one of which was in a negative voice, using the scales mainly proposed by Ajzen and Fishbein (1980) and Fishbein and Ajzen (2010) (Table 1).

Ethnic identity. Ethnic self-identification refers to the degree to which the respondent chooses the Hakka label to use for himself or herself as far as label, language, and culture are concerned. Borrowed from Hsu and Lee's (2012: 84) 5-item scale, we measured ethnic self-identification with the 5 statements, one of which was in a negative voice (Table 1).

Demographics. Although hypothesis testing is limited to respondents who have participated in Hakka online communities, we collected demographic data from non-adopters as well. We were interested in the demographic differences between adopters and non-adopters, so respondents' personal information such as gender, age, education, residence, and Hakka language proficiency was requested.

Table 1. Key Variable Measurements

Construct	Item
Behavioral intention (BI)	BI1: I intend to participate in Hakka online communities. BI2: I will not participate in Hakka online communities. (negative) BI3: I am willing to participate in Hakka online communities.
Subjective norms (SN)	SN1: Most people who are important to me think that I should participate in Hakka online communities. SN2: Most people whose opinions I value don't care about my participation in Hakka online communities. (negative) SN3: Most people I respect and admire will participate in Hakka online communities. SN4: Most people like me have participated in Hakka online communities.
Perceived behavioral control (PBC)	PBC1: I am confident that I can participate in Hakka online communities. PBC2: Participation in Hakka online communities is beyond my control. (negative) PBC3: If I really wanted to, I could participate in Hakka online communities. PBC4: For me to participate in Hakka online communities would be easy.
Ethnic self-identification (EI)	EI1: I speak Hakka with Hakka people in public places. EI2: I feel responsible to inherit Hakka language and culture. EI3: When I meet Hakka friends, I always treat them as my siblings. EI4: I feel unhappy to be a Hakka. (negative) EI5: I belong to the big Hakka community.

Source: Made by authors.

Data analysis

Suggested by Anderson and Gerbing (1988), we analyzed the collected

data following a two-step procedure. First, we developed the measurement model by conducting a confirmatory factor analysis. Then we estimated the structural equation model for hypothesis testing. Both the measurement and the structural models were assessed by the maximum likelihood method using AMOS. To evaluate the fit of the models, Chi-square with degree of freedom (df), the goodness of fit (GFI), the adjusted goodness of fit index (AGFI), the comparative fit index (CFI), and the standardized root mean square residual (SRMR) were assessed in addition to the chi-square test. In general, a model fit is considered to be adequate if the model Chi-square falls within the suggested value of 3 or below (Hayduck 1987); GFI and CFI are larger than 0.9 (Bagozzi and Yi 1988; Scott 1994); AGFI is larger than 0.8 (Scott 1994); SRMR is smaller than 0.08 (Hu and Bentler 1999).

Results

Sample profile

The original survey had 470 responses. There were 78 incomplete ones and 18 responses which were filtered out because they were not Timorese Hakka currently residing in Australia. In sum, we retained 374 valid samples for the survey, yielding a $\pm 5\%$ margin of error at a 95% confidence level. Table 2 provides our total sample profile and subsample comparison between the adopters and non-adopters of Hakka online communities (HOCs). In the total sample, the majority of the respondents were male (54.5%), aged 41 to

60 (41.4%); those who received only elementary education comprised 40.4%; persons living in Victoria were 72.9% of the sample; and Timorese Hakka who rated themselves as having a very good command of the Hakka language made up 66.4% of the total survey. Among the 374 respondents, although 328 respondents are internet users, only 204 persons had participated in HOCs. A closer look at the differences between HOC adopters and non-adopters revealed three trends if the margin of error is taken into account: Timorese Hakka aged 41 to 60 (47.1%) and very good at the Hakka language (76.0%) were more likely to be HOC adopters whereas Timorese Hakka aged 21 to 40 (37.1%) were more likely to be HOC non-adopters. This finding is interesting as it appears to show that the older age group is more likely to adopt HOC. Perhaps the younger age group has interests other than taking an active part in HOCs or it may not demonstrate an enthusiasm for maintaining Timorese Hakka heritage, unlike the older generation. This is a subject which warrants further investigations.

Table 2. Sample Profile (in valid percent)

	Total Sample	HOC Adopters	HOC None-Adopters
Gender			
Male	54.5	58.2	50.0
Female	44.6	41.2	48.6
Age			
Under 20	9.1	6.4	12.4
21-40	31.3	26.5	37.1
41-60	41.4	47.1	34.7
61-80	16.0	17.6	14.1
Over 81	2.1	2.5	1.8

Education			
Graduate school	7.3	7.6	7.0
Bachelor degree	18.2	16.5	20.1
High school	27.0	27.7	26.4
Elementary school	40.4	41.8	38.9
No educational attainment	1.0	0	2.1
Others	6.1	6.5	5.6
Residence			
Victoria	72.9	71.8	74.1
New South Wales	17.8	22.1	13.0
Northern Territory	5.8	3.9	8.0
Queensland	1.5	1.1	1.9
Others	2.1	1.1	3.0
Hakka Language Proficiency			
Very pool	1.2	1.0	1.5
Pool	3.5	1.7	5.6
Neither pool nor good	9.8	6.6	13.5
Good	19.1	14.7	24.4
Very good	66.4	76.0	55.0
Total	374	204	174

Source: Made by authors.

Hypothesis testing

In the confirmatory factor analysis of the measurement model, we removed 6 items (i.e., EI1, EI4, AT2, SN2, PBC2, BI2) because of low regression weights and high covariance, which yielded a Chi-square value of 159.190 with 67 degree of freedom ($p < .001$; $df=2.38$; $GFI=.90$; $AGFI=.85$; $CFI=.95$; $SRMR=.04$), indicating an acceptable fit. The measurement model was also verified by examining convergent validity, discriminant validity, and internal consistency (Table 3). First, the internal consistency of the measurement model was assessed by computing the composite reliability (CR). Consistent with the recommendations of Hair et al. (2005), all composite reliability was above the benchmark of .70. The average variance extracted

(AVE) for all constructs exceeded the threshold value of .50 recommended by Fornell and Larcker (1981). Finally, discriminant validity was evaluated also using the criterion recommended by Fornell and Larcker: the square root of the AVE should exceed the correlation shared between the construct and other constructs in the model. All but one square roots of the AVE were greater than the inter-construct correlations (i.e., .809 was less than .812). Because of the trade-off between the number of scale items and measurement scales, we decided to retain the construct for further analysis and placed a cautionary note in the Discussion and Conclusion section.

Table 3. Validity Measures

Construct	CR	AVE	Discriminant Validity				
			EI	AT	SN	PBC	BI
EI	.796	.566	.752				
AT	.873	.697	.500	.835			
SN	.875	.701	.548	.733	.837		
PBC	.850	.655	.492	.703	.683	.809	
BI	.865	.763	.478	.816	.792	.812	.873

Note: CR = composite reliability; AVE = average variance extracted; EI = ethnic identity; AT = attitude; SN = subjective norms; PBC = perceived behavioral control; BI = behavioral intention.

Source: Made by authors.

Then we examined the structural equation model by testing the hypothesized relationships among ethnic identity, attitude, subjective norms, perceived behavior control, and behavioral intention. Figure 2 summarized the results of the structural model analysis. Among the TPB constructs, perceived behavior control, attitudes, and subjective norms were significant in their

descending effects on behavioral intention. That is, if a Timorese Hakka feels confident, positive and socially pressured on HOCs, he or she will be more likely to participate in these online communities. So, H1, H2, and H3 were supported.

In addition, the TPB suggested that positive interactions among the predictors. Results show that dyadic relations between attitude and subjective norms between attitude and perceived behavioral control, and between subjective norms and perceived behavioral control had significant covariance in their descending effects on behavioral intention. So, H4 was supported.

With regard to ethnic identity, it was not a significant factor affecting the intention to participate in HOCs . It seems that even if a Timorese Hakka feels strongly about being a Hakka, it is not sufficient for him or her to show the willingness to participate in HOCs. Thus, H5 was not supported.

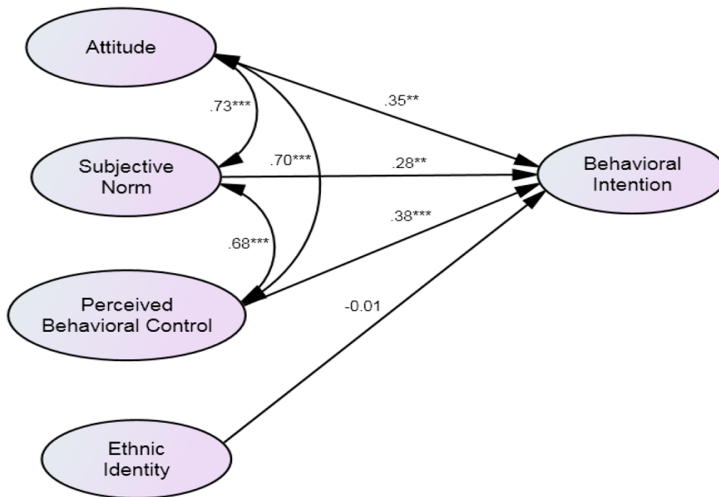


Figure 2. Structural Analysis of the Research Model

Note: *** $p < .001$, ** $p < .01$, * $p < .05$.

Source: Made by authors.

Together the four-factor model accounts for 81% of the observed variance in behavioral intention to participate in HOCs. However, the goodness of fit of the model did not provide evidence of adequate fit ($p < .001$; $df=3.10$; $GFI=.87$; $AGFI=.81$; $CFI=.92$; $SRMR=.19$), so a modified model was proposed. The definition of ethnic self identification refers to the ethnic label that one uses for oneself based on the “perception and conception” of themselves as belonging to an ethnic group (Phinney and Rotheram 1987: 17). In addition, an earlier work, though not testing the TPB, found that ethnic identity and product category interacted with the main effects of culture on people’s

attitudes toward online advertising (Gevorgyan and Manucharova 2015). We modified EI as a belief-based measure of the TPB constructs.

Suggested by the theoretical logic and modification indices, we removed the non-significant relation between ethnic identity and behavioral intention and added 3 paths to the model: (1) from ethnic identity to attitude, (2) from ethnic identity to subjective norm and (3) from ethnic identity to perceived behavioral control. As a result, the modified model fit the data reasonably better ($p < .001$; $df=2.87$; $GFI=.89$; $AGFI=.84$; $CFI=.94$; $SRMR=.05$).

Figure 3 is the modified model. In terms of predictive power, the TPB predictors played a mediating role between ethnic identity and behavioral intentions for Timorese Hakka to participate in HOCs. Specifically, attitudes, subjective norm, and perceived behavioral control produced direct and significant effects on behavioral intention whereas ethnic identity contributed indirect and significant effects through the TPB constructs on behavioral intention. That is to say, a Timorese Hakka who is more likely to use the Hakka label will build a more positive attitude, acquire better skills, and feeling more social pressure, all of which will increase his/her willingness to participate in Hakka online communities.

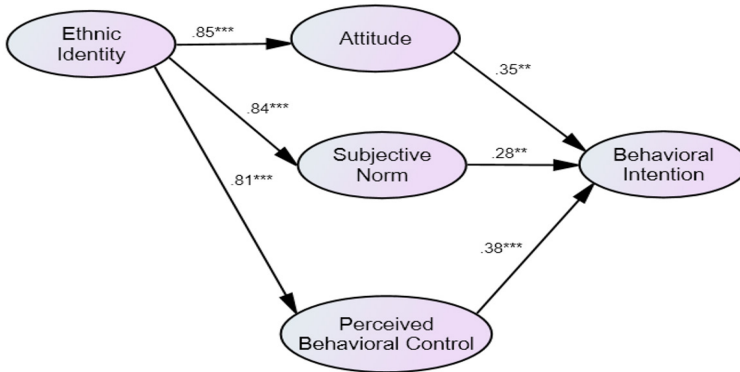


Figure 3. Structural Analysis of the Modified Model

Note: *** $p < .001$, ** $p < .01$, * $p < .05$.

Source: Made by authors.

To understand whether the modified model held true among different demographic groups, data files were split to run SEM analyses. As aforementioned, age and language proficiency appeared to have different patterns in terms of HOC adoption and non-adoption. We were also interested in knowing whether the differences existed even among HOC adopters. Given the modified model found significant relations across the six paths under study, non-significant relations among different demographic groups warrant attention. First, results show that subjective norms had no effect on behavioral intention among people under 40 and people who speak Hakka very well. Possible reasons are that young people may perceive less social pressure to participate in HOCs than older people, and people who are good at speaking Hakka may not feel pressured when participating in HOCs. Second, results

also show that perceived behavioral control had no effect on behavioral intention among people under 40 and people who don't speak Hakka well. It is reasonable to expect that young people and people who don't speak Hakka well may feel that they have less capability or efficacy to participate in HOCs.

**Table 4. Standardized Regression Weights
by Age and Language Proficiency**

Path	Age		Language	
	Under 40	Above 40	Not very good	Very good
EI -> AT	.94***	.83***	.73**	.84***
EI -> SN	.87***	.83***	.85**	.88***
EI -> PBC	.86***	.73***	.45*	.86***
AT -> BI	.51*	.38***	.69***	.26**
SN -> BI	.31	.25**	.34*	.13
PBC -> BI	.20	.37***	.10	.59***
N	64	137	51	153

Note: EI = ethnic identity; AT = attitude; SN = subjective norms; PBC = perceived behavioral control; BI = behavioral intention. *** p < .001, ** p < .01, * p < .05.

Source: Made by authors.

Discussion and Conclusion

We started off with a synthesis of the theory of planned behavior (TPB) and ethnic identity to analyze Timorese Hakka participation in ethnic online communities. Overall, the TPB is a significant model in analyzing Timorese Hakka online participation, whereas ethnic identity serves as a strong antecedent of the TPB constructs toward participating in those communities. Specifically, we found that ethnic identity, attitude, subjective norm, and per-

ceived behavioral control are significant factors in influencing the intention to participate in Hakka online communities. The results of this study shed light on some important issues. First, we found that individual, social, and non-volitional factors collectively represent the ethnic group's actual control over their intention. That is, participating in ethnic online communities requires not only a person's motivation (i.e., attitude and subjective norm) but also the person's ability (i.e., perceived control). This is in accord with some previous findings which showed exercising and dining out were predicted well by a simultaneous consideration of all three components (Fishbein and Ajzen 2010: 193-195). Moreover, ethnic identity should be considered an important prerequisite of the TPB constructs when ethnic groups are under investigation because ethnic behaviors can be attained if co-ethnics have a strong identity. The finding appears to reinforce the previous research on the ethnic identity of the same community and its use of the internet for communicative purposes, in that the sense of self identity drives motivation in the setting up of social associations and that there appeared to be a desire to use technology to communicate (Chew and Huang 2014: 2017). Ethnic identity is a necessary prior condition before planned behavioural intentions.

Based on the empirical findings, this study has provided some theoretical and practical contributions. First, we synthesize Ajzen and Fishbein's (1975) theory of planned behavior and Phinney and Rotherham's (1987) ethnic identity to investigate factors that motivate Timorese Hakka to participate in Hakka online communities. Our modified model suggests ethnic identity

as an influential antecedent of TPB constructs when ethnic groups are under study. Second, we conducted a mixed-mode survey which differed from normal online surveys in that it is not just an anonymous questionnaire delivered through the internet. We had the benefit of limited fieldwork where we had some face to face interactions with Timorese to address issues of questionnaire administration and to gather information, and we attended some social occasions to enhance our understanding of the community. Third, we believe the results of the study can have practical use for leaders or administrators of ethnic online communities. As the intention to participate in ethnic online communities can be predicated reasonably well by ethnic identity, attitudes, perceived behavioral control, and subjective norms, we suggest that community leaders should strive to stimulate their co-ethnics' intrinsic motivation. These elements may better be reflected in ethnicity-labeled activities. The strength of such activities is also likely to attract funding and support from government agencies wishing to promote multicultural policies.

Notwithstanding our findings and hypotheses, it is also important to address limitations in our study and the directions for future research. First, it should be noted that a bias exists because the sampling was targeted, with generalizations only reflecting this sample population. Future studies might want to examine the Timorese Hakka community randomly for a better representation of the entire population frame if possible. Second, the study only included constructs proposed by TBP and ethnic identity and left out other factors such as community support or system characteristics and other models

like social network analysis or protection motivation theory, which may better understand the behaviors of ethnic online communities, studies which will require more resources and in-depth investigations, beyond the scope of this paper. Third, we found several TPB constructs have high covariation which lead to less than satisfied validity in scale development. Future studies might want to pretest the scales in advance to decrease the validity issues. Last but not least, the existing literature on the Timorese Hakka in Australia is thin because the group has not received much research attention. This research is a starting point for future research. We or other researchers may replicate the model and investigate it in different time periods to make comparisons, thus providing more insights into the nature of such Hakka online communities.

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Appendix: A Mixed-Mode Survey

States	Internet mode	Paper mode
National	<ul style="list-style-type: none"> ■ Timorlo Club (https://www.facebook.com/groups/308185662570210/) 	
Victoria	<ul style="list-style-type: none"> ■ Timor Ethnic Chinese Community, Victoria (https://www.facebook.com/tecc.vic?fref=ts) ■ Timor Chinese Middle and Aged Association of Victoria (https://www.facebook.com/etcmaav/?fref=ts) ■ Federation of Timorese Hakka Association, Vic (https://www.facebook.com/TimoreseHakkaAssoc/?fref=ts) ■ Timor Ethnic Chinese Community (Vic), Women & Youth Group (https://www.facebook.com/groups/230290647035039/) 	<ul style="list-style-type: none"> ■ Timor Ethnic Chinese Community, Victoria (July 14th and July 16th) ■ Timor Chinese Middle and Aged Association (July 13th and July 17th) ■ Federation of Timorese Hakka Associations, Vic (July 17th) ■ Timor Taiwan Alumni Association of Victoria (July 16th)
New South Wales	<ul style="list-style-type: none"> ■ Timor Chinese Association of NSW (https://www.facebook.com/groups/1530548787213017/) 	